

MASSACHUSETTS PLOUGHMAN



VOL. LXII. - NO. 11

BOSTON, MASS., SATURDAY, DECEMBER 6 1902

WHOLE NO. 3176

MASSACHUSETTS PLOUGHMAN
NEW ENGLAND JOURNAL OF AGRICULTURE

Official Organ of the N. E. Agricultural Society.

MASSACHUSETTS PLOUGHMAN PUR. CO.
Publishers and Proprietors.
ISSUED WEEKLY AT

NO. 3 STATE STREET,
Boston, Mass.

TERMS:

\$2.50 per annum, in advance. \$2.50 if not paid in advance. Postage, 10 cents; single copies 5 cents. All persons sending contributions to the PLOUGHMAN for use in its columns must sign their name, not necessary for publication, but a guarantee of good faith, unless they desire to remain anonymous. Waste-basket. All matter intended for publication should be submitted on note size paper, with ink, and upon but one side.

Correspondence from practical farmers, giving the results of their experience, is solicited. Letters should be signed with the writer's real name, in full, which will be printed or not, as the writer may wish.

The PLOUGHMAN offers great advantages to advertisers, and is especially useful during the most active and intelligent portion of the community.

Entered as second-class mail matter.

Our Cultivated Grasses.

On no crop is the average farmer so dependent as the grass crop for pasture and for hay, yet few understand the merits of the different grasses enough to use good judgment in sowing their seed. A common fault is not to use enough seed, and another is not to use a sufficient variety of seeds. Then many sow the wrong varieties together, as when they sow clover and timothy together, which makes it necessary to cut the timothy too early in order to get the clover in its best condition, or to let the clover be damaged by standing too long. Then some kinds are sown on meadows which are better adapted for permanent pastures, as they require three or four years for them to take possession of the soil.

Timothy or herd's-grass is a strong favorite with the farmers of the Northern States, because it is productive, as high as five and a half tons having been grown to the acre. It is also a favorite with stable keepers, as it shows by analysis a larger proportion of nutritive qualities than the other grasses. It starts again slowly after cutting and gives but little aftermath, and is not well suited for pasture. It also usually runs out in three or four years, and thus takes its place in a short rotation of crops, or makes it necessary to sow other crops with it to fill the field when the herd's-grass has served its term. It thrives best on moist, peaty or loamy soil, and does not do well on light, sandy or gravelly soils. Cattle relish it best when cut in the blossom or immediately after, but the crop is much heavier when fully ripe, as a good crop has four hundred to 1200 pounds of seed to the acre, nearly as valuable as any grain for horses.

Redtop, fine top, Burden's grass and Dew grass are the common names for *Agrostis vulgaris*. It is also sometimes called fine bent in England, and herd's-grass in Pennsylvania and the Southern States. It is much sown with timothy, as it also likes a moist soil, though it will grow on almost any soil. It soon fills the ground as the timothy dies out. White top or white bent grass is of nearly the same species, and will endure on overflowed meadows, and the blue joint grass is adapted to low lands, and more nutritious than the redtop or white top, which are but second quality for hay even when cut as they should be in the blossom. Meadow foxtail is an early grass, productive, nutritious, and has a luxuriant growth of aftermath after cutting. As a grass for a permanent pasture it has few superiors, as cattle and sheep like it much. It is often sown with timothy, where the object is about three years mowing and then a pasture, as it requires about that time to get full possession of the ground. It loses heavily in drying, and should not be cut until after the seeds ripen. While it grows best on moist soils, it will grow on almost any soil but dry sand and gravel.

Kentucky blue-grass (*Poa pretensis*), known also here as June grass, green meadow-grass, common spear-grass and other names locally, is one of the most valuable pasture grasses, being among the earliest to start in the spring, productive and nutritious, much liked by stock. It grows best on a limestone soil. It is hardy in winter, but liable to injury from drought. As it requires two or three years to take possession of the field and does not yield a heavy crop of hay, we cannot recommend it for mowing lands, unless they are to be made pastures after a few years. Blue grass hay is very good and much relished by the animals. Blue or wire-grass (*Poa compressa*) is a valuable variety much like the above, but so hardy as to flourish on sandy rocky or hard soils. It has a large per cent. of nutritious matter in proportion to its bulk, and is especially valuable as a food for cows in milk.

An annual spear-grass is a common pasture grass, flowering the whole season and furnishing continual feed if not parched by a drought. Rough-stalked meadow-grass is not as nutritious as some of the other grasses, but cattle relish it well, and it is permanent and productive. Best adapted to moist soils. Wood meadow-grass is finer, more succulent and nutritious than the others, less but little in drying, and should be better known and more sown than it has been. Foul or foul meadow-grass (*Poa scutellata*) is one of our earliest and best of cultivated grasses, and it is both productive and nutritious. It may be cut at any time from July to October, and makes a sweet and tender hay. The second crop, when the first is cut early, has more nutrient than orchard or oat grass. It should be sown with other grasses on rich moist soils, and thus goes with timothy on such soils.

Meadow fescue is a native grass, grows naturally in moist pastures, ripens seed early and seeds itself. While a rather nutritious pasture grass, if sown at all,

RECEIVED

DEC 8 1902

JOURNAL OF

THE PLOUGHMAN

<p

Work of the Massachusetts Highway Commission

The area of Massachusetts is eight thousand square miles. The State has twenty thousand miles of road, of which eighteen thousand miles are in the towns. The population of the State is 2,350,000, and the property valuation is \$2,500,000,000. Sixty-seven per cent. of the population and property value is in the cities. The value of the agricultural products is \$30,000,000, and the manufacturing interests are estimated to be worth \$1,27,000,000.

The whole seashore district and the Berkshire Hill district are given over to summer travel and summer residences, and whatever is done in good road work will increase the value of the land. Besides, the construction of good roads will lead to the re-establishment of small waterpower stations that have fallen into disuse. This is already being accomplished. The farmers of the State send their products to be prepared for the market at these small industrial plants. The latter thus secure their raw material at first cost, the selling price of the manufactured article is less than otherwise, and all reap the benefit.

Massachusetts has now 180 miles of State road built. It has been built at a cost of \$4,400,000, of which \$200,000 has been expended in buying machinery for the towns and for the maintenance of the roads. The roads were built at an average cost of \$200 a mile. The cost per mile has varied from \$200 to \$25,000. The cost of maintenance, which is met by the State up to \$50 a mile, is \$10 a mile each year.

The State roads have been built of broken stone or gravel. The source of supply, the weight and volume of the travel and the character of the subsoil have been carefully studied, and the road has been made to meet the physical conditions and the demands of traffic.

Besides the roads built by the State, the towns have built at their own expense in the last eight years five hundred miles of road. These roads are as good as those made by the State, and have been built in the same period required to construct the 480 miles of State road. The towns, however, were stimulated to action by the measures taken by the State. Opposition to the improvement of roads has practically ceased.

The method of execution of the work was described substantially as follows:

The location and construction of the State roads is in the hands of the State Highway Commission, one of whose members is an engineer. Hearings are given on petitions, at which the roads to be built each year are selected. This selection is made in the spring and money is allotted to each county according to the judgment of the commission. Extensions of existing improvements are usually made so as to make the roads as nearly continuous as possible.

Next follow the surveys. There are five division engineers to look after road construction and maintenance and advise the road supervisors. The surveys consist of levels and cross sections. The grades are laid out on profiles by the engineer on the grounds, so as to fit present good sections of road as nearly as possible and to require the minimum of work.

Unless the town decides to take the work itself at the price bid it is let to the lowest bidder. Half the time the town takes the contract, uses home labor and gains experience of use in future construction and repair.

In the last eight years the towns have built over five hundred miles from their own appropriations in addition to those built by the State. Forty per cent. of the appropriation must be set aside for towns of less than \$1,000,000 valuation. Some of these do not then get more than \$100 to \$150 a mile of their road length.

The methods of construction were then described. First act to drainage. Sub-drains are used where needed, but only there. In clay they have outlet in culverts or water courses. Their depth is three feet. The vitrified pipe used, with open joints, is surrounded by fine gravel and the trench is filled with coarse stone. In cut drains are put on both sides of the road, elsewhere on the upper side unless needed on both sides. They are always used in clay, never in gravel or sand, sometimes in sandy loam. If there are failures on account of omission of drains they are inserted. Surface water drains, conduits and culverts are constructed as needed, and all are included in the cost of the road. Much care is taken in deciding form of ditches along sides of roads.

As to foundations. The English experience with Telford foundations is reported unsatisfactory. The foundation stones sink into clay and their points are projected by frost action above the surface. Massachusetts puts a course of gravel on the clay as basis for the Telford and broken stone layers. In four or five years a new surface is needed. The Telford acts as an anvil for crushing the surface layer under the blows of traffic. It is being discarded in favor of gravel, of which nine or ten inches serve the same purpose. The depth is changed as the subsoil requires, the method of computation being that the square of twice the depth of the broken stone or gravel, divided by the weight on one wheel, shall not exceed three or four, the assumed bearing power of the clay in pounds per square inch. The subgrade is thoroughly rolled with a steam roller. Then the gravel is put on, and the broken stone of the first course. This is rolled, and the wearing surface is put on according to the traffic. The broken stone is screened through one-half, 1½ and 2½-inch screens. The large stones, 2½ to four inches in size, are put on the bottom as it is shaped and rolled. The top layer is made of stone one-half to 1½ inches, the lower course 1½ to 2½ inches, the total depth being six inches. The surface is evened up with stones of the same size. The whole is then covered with screenings less than one-half inch in size. No water is used until the screenings are put on. The surface is then thoroughly watered and rolled, forcing the screenings into the stone. Bare spots are covered, watered and rolled again, until the dust and water flush to the surface. Gravel is sometimes used, laid in the same way as the broken stone. If hauled more than two miles it costs more than broken stone with less haul than two miles.

Machinery—The crusher is set to run the stone through without handling after it enters the hopper. A portable crusher costs \$1,600, and ten horses can haul it from place to place. Two rollers are owned by the commission, for loaning to towns. The State work is done by contract. Cost—The average cost per mile of road in Massachusetts is \$8200. This includes everything from grading bridges and materials to finished road. The State pays \$6000 of the cost and the counties the remainder. The roads cost more than in New Jersey for several reasons. The labor day is nine hours, the average wage is higher; in all thirty per cent.

Repairs—The division engineer goes over

every road in his division once in two or three weeks. He orders the repair men to make the repairs. The repairs are let by contract, some at \$50 a mile per year. In one case the man has eleven miles. This payment is for the time of the man, his horse and tools, the State furnishing the road materials. Some of the roads are two years old and some eight. The roads are repaired continually until they are worn thin, when the surface is broken up with roller spikes and a new top of one-half to 1½ inch stone is put on.

In answer to questions it was stated that the thickness of broken stone varies from four to six inches, one road having but three inches. The total thickness varies from six to twenty-four inches. Side drains are of glazed bell and spigot pipe with open joints, with two inches of broken stone underneath, fine gravel around and over, located 3½ feet below the top of the road. They are from five inches up to ten inches or more in diameter, and cost from twenty-five to forty cents a linear foot. There is no frost action on them at this depth.

W. E. MCCLINTOCK.
Chairman Massachusetts Highway Commission.

Boston Provision Market.

Bork provisions are again lower, though lard has fluctuated considerably, and has not declined to the same extent as cut meats: Short cut and heavy backs \$23, long back \$23.50, medium \$22, lean ends \$23.50, bear pork \$18.25 to \$19, fresh ribs \$11 cents, corned and fresh shoulders 10½ cents, smoked shoulders 11 cents, lard 12½ cents, pails 12½ to 13½ cents, hams 13 to 14 cents, skinned hams 13½ cents, sausage 11 cents, Frankfurts sausages 10 cents, boiled hams 18 to 18½ cents, bacon 15 to 16½ cents, bologna 10 cents, pressed hams 12½ cents, raw leaf lard 12½ cents, rendered leaf lard 12½ cents, in pails 13½ to 14½ cents, pork tongues 24 to 25 cents, salt pork 12 cents, briskets 12½ cents, sausages meat 9½ cents, country dressed hogs 8 cents.

Cordage grapes sell at 13 to 14 cents, with Catawbas at 15 to 17 cents and a few Vergeries still offering at 18 cents. Jobbing prices are 1 to 2 cents more. California Tokays are sold at \$2.25 to \$3 per crate of four baskets, according to quality. Foreign are quoted at \$3.50 to \$10 per barrel.

For the week the receipts of grapes were 17,113 barrels foreign, 69,517 baskets and 4423 carriers domestic; same week last year 1205 barrels foreign, 71,568 baskets and 15 carriers domestic.

Pears are still offering in a small way from cold storage. In a jobbing way they are quoted at: Cooking \$1.25 to \$1.50, Beurre Boss \$4, Beurre d'Anjou \$2.50 to \$3.50, Sheldon \$5, Clairgeau \$2 to \$3.50, Lawrence \$1.50 to \$2, Kefler \$2 to \$3.

Jamaica oranges are in good supply and are quoted at \$3.50 to \$4 per box and \$6.50 to \$7 per barrel; new Floridas sell at \$3.50 to \$4. For the week the receipts of oranges were 3885 boxes Jamaica and 3389 barrels; same week a year ago, 2962 boxes and 4336 barrels; this year, 4370 boxes Florida; last year, 2387 boxes.

California lemons are in light supply and are firmer at \$5 to \$5.50 per box for 300 counts, \$4.50 to \$5 for 350 counts and \$4.50 to \$5 for 400 counts; Jamaica grape fruit is quoted at \$3 to \$6.50 per box.

Cranberries are firm—Buckets \$6 to \$7.50, crates \$2 to \$2.50, jobbing 5 cents to \$1 more.

For the week the receipts of cranberries were 1063 barrels, same week last year, 3905 barrels.

Turkish figs are quoted at 10½ to 18 cents per pound, as to package and quality. California figs are quoted at \$1 per box.

Persian dates sell at 4 to 4½ cents per pound, with Fard dates at 6 cents in bulk and 7½ cents for 10-pound boxes.

Nuts are in good supply and sell at: Walnuts 11 to 13½ cents per pound, castanas 9 to 11 cents, filberts 11 to 12 cents, Texas pecans 11 to 15 cents, almonds 12 to 13 cents per hard and 15 to 17 cents for soft shell.

GUERNSEY ELITE OF MAPLEHURST, NO. 8452. (Adv. R. No. 18).

Owned by G. B. Tallman, Perry, N. Y.

Official year's record, Milk 9,197.35 lbs.; Butter 142.06 lbs.

The exports for the week included the steamer *Ivernia*, a part of whose cargo were 39,611 barrels apples, said to be record shipment from any American port.

Cordage grapes sell at 13 to 14 cents, with Catawbas at 15 to 17 cents and a few Vergeries still offering at 18 cents. Jobbing prices are 1 to 2 cents more. California Tokays are sold at \$2.25 to \$3 per crate of four baskets, according to quality. Foreign are quoted at \$3.50 to \$10 per barrel.

A cable from James Adam & Son, Liverpool, to Chester R. Lawrence, on Monday, says: "Apple market is active in face of heavy imports." J. C. Houghton & Co., of same date from Liverpool, say: "Steamers *Turcooman*, *Devonian* and *remainder* of *Ultonia* selling; 15,000 barrels sold. Demand very active, but prices remained unchanged.

Literature.

A New York lawyer of good family with much money is Richard Gordon, the hero of Mr. Alexander Black's first long novel. Black has given an interesting portrait of Richard Croker, together with a revelation of some of the methods used by Tammany Hall. The hero, Richard Gordon, becomes engaged in politics, and experiences a defeat at the election. The view which the young lawyer takes of his non-success is rather amusing. He has been in the attitude of one not minding defeat especially, yet when he finds that he has lost he discovers how much he really did care. The love part of the story is developed with much mystery. The young lady whom Richard loves, declines his offer of marriage, yet admits she reciprocates the affection but cannot marry him. At last the barriers are forced one side as she confesses to an elopement early in her life, without marriage, as the reason for the refusal. The conversations between Richard and this woman have something of the socialistic atmosphere. There is often a terseness in the dialogues throughout the book which breaks the even flow of the conversational part. There are obscurities which render some portions of the story baffling, cold and mysterious. True emotions are lacking so often that the tale seems bloodless in many parts. One feels as if the characters ought to sense more; at any rate, enough so that would be forced to throw off that icy reserve which is maddening. Richard's sister, although not one of the central characters, appears much more human than her brother's fiancee. Richard's friend is a cynical type of a man, and not far from being a most wearisome one when he is talking. The second chapter in the book contains a fine description of a race with time. Julia Darwood's father is on his deathbed and sends for his daughter. There is a limited space of time in which to gain the train, and Richard Gordon attempts to catch it with fast horses in order to aid Miss Darwood in every possible way to reach her destination. The train is blockaded and a sleigh is obtained in which to finish their journey. "It grew colder and the powdered snow struck them viciously." Gordon, with his head low, spoke to her from beneath the peak of his newly acquired cap. Her voice, coming from behind the ice-decked veil, was confident and cheerful. "I have been over this road so many times," she said. The horses plunged under the prick of the ice, flinging snow-spray to the right and left. The trees twisted and crackled and showered them over overhead. . . . The air cleared and within five minutes a light gleamed over the rim of a low hill to the north. She had been leaning forward intently. "The house," she cried, with something like a sob, "Thank God, I'm safe!"

The book contains much that is individual, and there is a clearness about the plot that is refreshing. [Boston: Lothrop Publishing Company. Price, \$1.50.]

This novel, by Frank H. Spearman, has a professional atmosphere throughout. Dr. Bryson, the chief character, is an eminent oculist, who, having had to secure his advancement by his own efforts, is exceedingly philanthropic in his practice. He is of a dictatorial disposition, but has a kind nature, and possesses the power of personal attraction or magnetism. His presence gives confidence, and in no way is it better illustrated than in the case of Ruth, the little girl suffering with glaucoma. The child at once gives the doctor her whole confidence, and remains perfectly quiet while he examines her eyes. That the doctor is a student is often shown a few nights before he operates upon Ruth. "The student lamp was burning. Bryson's books laid in a heap on the floor, and he sat with his legs crossed before the dying fire, his head supported weakly upon his hands. . . . little, so little, so new, much, so much old, so unsatisfactory, so little fact, so little theory. . . . Grim, mysterious, deadly disease! It was not of the mother he was thinking in the midnight except to think of her asleep while he pondered. It was not her eyes strangely awed inspiring; not of her hands in her lap; not of her hair vaguely curling about her ears that he was thinking, but of the spectre that brooded over the eyes of her child—the spectre of glaucoma!" The professional man is always evident in Dr. Bryson, his trained eyes ever seen searching for evidence of disease. He is the result of a mighty ambition and hard work, his own soul being wrapped up in his profession. How much confidence he has come to repose in his own skill is evident by the shock he suffers when he discovers he is powerless before a case of blindness. Eyes that are healthy and should see do not, and he cannot ascertain the reason. He lets his practice go, devoting his whole time to this one case. The love part of the story is developed, but suffers by the continued concreteness which at times becomes obtrusive.

The exports of butter at Boston for the week ending Nov. 22 were 11,055 tubs and 26,897 boxes, a total weight of 582,460 pounds, against 351,970 pounds the previous week and 715,288 pounds the corresponding week last year.

The exports of butter from Boston for the week were 13,200 pounds, against 76,049 pounds corresponding week last year. From New York 50 packages were exported.

The stock of butter in the Quincy Market Company's warehouse is 178,644 tubs, against 142,078 tubs a year ago. The Eastern Company reports a stock of 41,766 tubs, against 19,005 tubs last year, and these added make a total stock of 220,410 tubs against 161,083 tubs same time last year, an excess for this year of 59,327 tubs. The stock was reduced 10,961 tubs, against 11,257 tubs corresponding week a year ago.

The receipts of butter at Boston for the week ending Nov. 22 were 11,055 tubs and 26,897 boxes, a total weight of 582,460 pounds, against 351,970 pounds the previous week and 715,288 pounds the corresponding week last year.

The exports of butter from Boston for the week were 13,200 pounds, against 76,049 pounds corresponding week last year. From New York 50 packages were exported.

The stock of butter in the Quincy Market Company's warehouse is 178,644 tubs, against 142,078 tubs a year ago. The Eastern Company reports a stock of 41,766 tubs, against 19,005 tubs last year, and these added make a total stock of 220,410 tubs against 161,083 tubs same time last year, an excess for this year of 59,327 tubs. The stock was reduced 10,961 tubs, against 11,257 tubs corresponding week a year ago.

The exports of butter at Boston for the week ending Nov. 22 were 11,055 tubs and 26,897 boxes, a total weight of 582,460 pounds, against 351,970 pounds the previous week and 715,288 pounds the corresponding week last year.

The exports of butter from Boston for the week were 13,200 pounds, against 76,049 pounds corresponding week last year. From New York 50 packages were exported.

The stock of butter in the Quincy Market Company's warehouse is 178,644 tubs, against 142,078 tubs a year ago. The Eastern Company reports a stock of 41,766 tubs, against 19,005 tubs last year, and these added make a total stock of 220,410 tubs against 161,083 tubs same time last year, an excess for this year of 59,327 tubs. The stock was reduced 10,961 tubs, against 11,257 tubs corresponding week a year ago.

The exports of butter at Boston for the week ending Nov. 22 were 11,055 tubs and 26,897 boxes, a total weight of 582,460 pounds, against 351,970 pounds the previous week and 715,288 pounds the corresponding week last year.

The exports of butter from Boston for the week were 13,200 pounds, against 76,049 pounds corresponding week last year. From New York 50 packages were exported.

The stock of butter in the Quincy Market Company's warehouse is 178,644 tubs, against 142,078 tubs a year ago. The Eastern Company reports a stock of 41,766 tubs, against 19,005 tubs last year, and these added make a total stock of 220,410 tubs against 161,083 tubs same time last year, an excess for this year of 59,327 tubs. The stock was reduced 10,961 tubs, against 11,257 tubs corresponding week a year ago.

The exports of butter at Boston for the week ending Nov. 22 were 11,055 tubs and 26,897 boxes, a total weight of 582,460 pounds, against 351,970 pounds the previous week and 715,288 pounds the corresponding week last year.

The exports of butter from Boston for the week were 13,200 pounds, against 76,049 pounds corresponding week last year. From New York 50 packages were exported.

The stock of butter in the Quincy Market Company's warehouse is 178,644 tubs, against 142,078 tubs a year ago. The Eastern Company reports a stock of 41,766 tubs, against 19,005 tubs last year, and these added make a total stock of 220,410 tubs against 161,083 tubs same time last year, an excess for this year of 59,327 tubs. The stock was reduced 10,961 tubs, against 11,257 tubs corresponding week a year ago.

The exports of butter at Boston for the week ending Nov. 22 were 11,055 tubs and 26,897 boxes, a total weight of 582,460 pounds, against 351,970 pounds the previous week and 715,288 pounds the corresponding week last year.

The exports of butter from Boston for the week were 13,200 pounds, against 76,049 pounds corresponding week last year. From New York 50 packages were exported.

The stock of butter in the Quincy Market Company's warehouse is 178,644 tubs, against 142,078 tubs a year ago. The Eastern Company reports a stock of 41,766 tubs, against 19,005 tubs last year, and these added make a total stock of 220,410 tubs against 161,083 tubs same time last year, an excess for this year of 59,327 tubs. The stock was reduced 10,961 tubs, against 11,257 tubs corresponding week a year ago.

The exports of butter at Boston for the week ending Nov. 22 were 11,055 tubs and 26,897 boxes, a total weight of 582,460 pounds, against 351,970 pounds the previous week and 715,288 pounds the

MASSACHUSETTS PLOUGHMAN
THE NEW ENGLAND JOURNAL OF AGRICULTURE.

The name of Krupp is naturally one of universal report.

A deer in a greenhouse is as disastrous as a bull in a china shop.

The automobile continues to grow as a source of municipal revenue.

An open fire was one of the things for which those who had it were duly thankful.

We suspect that the Harvard eleven prefers its IIs, even in defeat, to the Ys of Eli, even in the hour of victory.

If milk continues to go up in Gotham, it may become so great a luxury as to supersede wine on the tables of the rich.

Managers of burlesque companies will probably be interested to learn that the latest record for the high kick is seven feet 6 inches.

Egyptian onions, says the Rev. A. C. Dixon, do not mix with heavenly manna. The onions, we imagine, are contained in the more familiar flesh pots.

Beverly not only rejoices in citizens benevolent enough to furnish ornamental sign posts, but also benevolent enough to remove the mud thrown on these sign posts by the unappreciative.

What is a basket ball team without a place to play in? This is the conundrum which the young women athletes of Malden have now called to the attention of the city government.

Is it possible that Postmaster-General Payne's recent order is intended to protect female clerks in the Postoffice Department from fortune hunters? Washington has been said to be full of them.

The forthcoming publication of the first Italian magazine issued in this country is another evidence of the growing development of the Hub as an Italian centre. We are marching toward the position of the modern Rome, as well as that of the modern Athens.

The new race, traces of which are said to have been discovered in the old flint quarries near Nahawah, Neb., is diagnosed as a race of "patient plodders." No wonder that the average newspaper reader takes little interest in it. Patient plodding is sadly out of fashion.

Now that a local department store has started a theatre for the amusement of its patrons, another chapter may be said to have opened in the book of "Buying Made Easy." The audience is presumably expected to go out between the acts and buy a bargain.

Improved discipline has followed the introduction of a weekly half-holiday as a reward for the well-behaved prisoner at a local prison. The family that the well-behaved prisoner has often left outside, to take care of itself as best it may, would probably also like an occasional comfortable half-holiday.

Cupid's troubles are over, at least for the time being, in the broach of promise case that has been stirring Fall River. But which, among Cupid's Olympian relatives, influenced candidate for affection number one to good-naturedly withdraw her opposition to the communal happiness of candidate number two?

The worldliness of the South Boston school boy who has to invent excuses to leave the schoolroom long enough to inhale sufficient cigarette smoke to carry his wearied nerves through the session is another example of our national precocity. Or is it due to the varied demands of the modern public school curriculum?

The Musical Mutual Protective Union objects to the classification of all incoming players upon instruments as "artists," suggesting "artisans" as the proper substitute. But why not "mechanical"? And isn't the latter one that ought quite as much be taken up by the Unmusical Mutual Protective Union, anyway?

Truly the ordinary matchmaker is as naught compared to Mr. Evans of King and Piero counties, Washington. Or is the gentleman's letter to the postmaster of Plymouth, Pa., simply the expression of an ambition to be the Santa Claus of "five hundred nice-looking, healthy young men" in his immediate neighborhood?

As an example of fallacious argument, the calculation upon which a contemporary bases picturesque contrast between the hotel Thanksgiving dinner of a wealthy Back Bay family and that of a small boy in a cheap down-town restaurant is worthy of comment. First, because even the members of wealthy families are incapable of individually devouring several full orders from a hotel bill of fare; and second, because wealthy Back Bay families rarely go to hotels for Thanksgiving dinners.

This is the season of the year when consumers appreciate honey. Honey, fresh from the hive, is delicious and healthful. As the human system requires a certain amount of sugar, honey is one of the purest forms in which it may be taken. Fresh from the comb, no food is so free from impurity, since the wax that covers it screens it from outside corruption. The buckwheat-cake season induces large consumption of honey among those who appreciate its value as a food.

There is prospect of a large trade between Pacific-coast points and Australasia, China and East India points, in American grain, especially wheat. Grain is especially active on the Pacific coast for the export trade. Large sales have been made to Australian parties, the wheat to be shipped from Pacific-coast points. President Hill of the Great Northern Railway expects the future will develop an immense grain trade at Pacific-coast points for export, even to the extent of drawing on some of the wheat-growing States this side of the Rocky Mountains.

The seventeen-year locust, that we were warned to look out for as likely to appear in 1902, either did not come in great numbers or the paper of those sections did not see fit to say anything about their presence. They seem to have been more of a scare than an actual pest this year. It may have been that the season was not favorable for its development, or that some season since 1885 was severe enough to kill them in the

larva state, although we do not remember any very unusual season excepting the blizzard of 1888, and that did not extend over all or much of the territory where the locusts appeared seventeen years ago.

Where does all our hay go to? During the ten years ending in 1881 we exported 80,751 tons. In the next ten years we exported 183,726 tons. In the ten years ending in 1901 we exported 599,382 tons. In 1896 we exported 5208 tons, and five years later, in 1901, we shipped 89,364 tons, a gain of 84,336 tons. But a more important question is, Where does all this hay come from, and what agencies have so increased our production that we can ship 500,000 more tons in the last ten years than we could in the decade that ended twenty years ago? There has been some new land taken up in that time, but not much of it is producing hay for export. We have not decreased the number of stock fed, but they have largely increased. We can see but two leading causes, a better cultivation of the soil than was common before 1881, and the saving and putting to use of the corn fodder that used to be wasted. The shredder is entitled to much of the credit for our increased export trade of hay.

We are somewhat surprised that Major Alvord, chief of the dairy division of the Department of Agriculture, can find no better subject to discuss than the fraudulent practice, as he pleases to term it, of the artificial coloring of pure butter. It would seem that Major Alvord had exhausted his range and study of topics, and was forced, in his own opinion, to take up something quite foreign to the interests of the producers of genuine butter. He promises an example in the future, but we think there is much better work for the officers of the dairy division of the Department of Agriculture than to undertake to discourage the use of genuine butter, and to throw an opinion broadcast which would lead the general public to suppose that genuine butter and bogus butter were to be classed alike because of artificial coloring. We hope Major Alvord may find something more important to discuss, or that the Secretary of Agriculture may select some subject for him to investigate rather than to devote his time to depressing the value and consumption of genuine butter among the consuming public.

Fertilizer Chemicals.

Of the many materials used to supplement farmyard manure nearly all are more or less waste products, and more or less irregular in composition. Cottonseed meal, fish scrap, tankage, etc., contain nitrogen and phosphoric acid in much the same condition they exist in farmyard manure; but the nitrogen is reasonably available, but the phosphoric acid is very slow in action. All of the fertilizer chemicals are noted for presenting the plant food they contain in the highest form of availability. The following list gives the composition of the commoner fertilizer chemicals and the pounds of each per ton they contain per ton:

	Nitrogen.	Potash.	Acid.
Nitrate of Soda.	320 lbs.	None.	None.
Ammonia Sulfate.	400 lbs.	None.	None.
Ammonium Nitrate.	None.	1000 lbs.	"
Potash Muriate.	"	1000 lbs.	"
Kainit.	"	250 "	"
Acid Phosphate.	"	None.	280 lbs.

As the table shows, none of the true fertilizer chemicals are a complete manure or fertilizer, but a complete mixture may be made from same. As might be supposed from their high grade, as a rule the animal food in fertilizer chemicals is a trifle more expensive in first cost than the crude materials, but it is more than probable that in actual crop yields the chemicals are really the cheapest, as larger per cent. of the fertilizer applied is realized in crops. In the case of the potash chemicals, being practically the only source of potash, they are substantially the cheapest form of this element of plant food.

The fertilizer offered in the general market are, of course, largely compounded of these raw materials nearest at hand. For example, in the South we find cottonseed meal largely used in mixtures, and acid phosphate also forms a large part of the natural phosphate beds are in the South. On the coast fine fish scrap is largely used, also various forms of tankage made from the refuse of the meat market.

In all these refuse substances, and the list is a long one, scarcely one contains any potash, yet potash is the element of plant food most needed, regarded from the point of quantity. General crops require about equal quantities of potash and nitrogen, but a large proportion of the nitrogen is obtained by growing clover in rotation. All of the potash must be supplied, and practically it must all come from the potash fertilizer chemicals. This does not mean that an expensive mixture made from fertilizer chemicals must be used. A much better plan is to buy the useful waste products, and mix potash salts with them; or buy such mixtures of the fertilizer companies.

The main point to consider is the analysis of the fertilizer, then how much of any particular chemical must be used to bring about a correct balance of plant food. This is simply a matter of arithmetic, but it is a very important matter, too. If the plant food is not well balanced, the crops will take it out of the acre yields.

Greenhouse Construction and Management.

Under the above title Prof. S. T. Maynard, formerly professor of horticulture at Massachusetts Agricultural College, has an interesting and instructive essay in the October bulletin sent out by the Massachusetts Board of Agriculture, which we shall take the liberty of condensing for the benefit of our readers who do not receive those bulletins.

He says that the increased demand for vegetables out of season and for cut flowers in the winter has resulted in the building of glass houses for their growth in almost every city and large town in New England. These industries can well be carried on in connection with other lines of agriculture and horticulture, as they furnish employment for the winter months, when not much work can be profitably carried on out doors. Any young man or woman with a love for plants and flowers, who will make a careful study of the work as done by successful greenhouse men, with a little capital and determination to succeed, will have no serious difficulty in mastering the business in two or three years, though they may learn something each year they are in the business, if it is a lifetime.

The glass house should be located where it

will receive the greatest amount of sunshine in December and January, and be as much sheltered from the north and northwest winds as possible. There should be the most perfect drainage, so there will be no standing water in any part of the house or near the surface of the ground outside, and so that water coming into it shall drain away quickly. Surface and under drains about the building should be provided that the surface water shall run away from the house, and there should be a supply of water with a head of at least forty feet, which should be from a reservoir or cistern and not from wells.

The greenhouse can often be built cheaper in the country than in the city, as material like lumber and stone, soil for beds and benches can be obtained at less cost, and the owner, if skilled in the use of tools, can do much of the labor himself.

Most of modern houses are of one of three kinds, the simplest form of much value for commercial purposes being a lean-to built on the south side of a stable or dwelling house and thus sheltered from the north, requires but comparatively little heat, but cannot be as well ventilated as a house exposed on all sides. The three-quarter span house facing the south is the one most in use by commercial florists and market gardeners. In this nearly three-fourths of the roof is on the south side, the north roof being a little steeper than the south. This gives the greatest amount of sunshine, and may be ventilated from all sides when growing crops that require low temperature and an abundance of light.

The even-space house, or that with both parts of the roof alike, is generally placed north and south, and has the advantage of small houses. High heat can be got up quicker with steam than with hot water, and less heating surface of pipe is required, thus making first cost a little less. With hot water a less amount of heat may be used in spring and fall, and heat will be secured more cheaply. Either steam or hot-water pipes are used for heating greenhouses, steam more frequently for large houses, and hot water for small houses. High heat can be got up quicker with steam than with hot water, and less heating surface of pipe is required, thus making first cost a little less. With hot water a less amount of heat may be used in spring and fall, and heat will be secured more cheaply. Either steam or hot-water pipes are used for heating greenhouses, steam more frequently for large houses, and hot water for small houses. High heat can be got up quicker with steam than with hot water, and less heating surface of pipe is required, thus making first cost a little less. With hot water a less amount of heat may be used in spring and fall, and heat will be secured more cheaply. Either steam or hot-water pipes are used for heating greenhouses, steam more frequently for large houses, and hot water for small houses. High heat can be got up quicker with steam than with hot water, and less heating surface of pipe is required, thus making first cost a little less. With hot water a less amount of heat may be used in spring and fall, and heat will be secured more cheaply. Either steam or hot-water pipes are used for heating greenhouses, steam more frequently for large houses, and hot water for small houses. High heat can be got up quicker with steam than with hot water, and less heating surface of pipe is required, thus making first cost a little less. With hot water a less amount of heat may be used in spring and fall, and heat will be secured more cheaply. Either steam or hot-water pipes are used for heating greenhouses, steam more frequently for large houses, and hot water for small houses. High heat can be got up quicker with steam than with hot water, and less heating surface of pipe is required, thus making first cost a little less. With hot water a less amount of heat may be used in spring and fall, and heat will be secured more cheaply. Either steam or hot-water pipes are used for heating greenhouses, steam more frequently for large houses, and hot water for small houses. High heat can be got up quicker with steam than with hot water, and less heating surface of pipe is required, thus making first cost a little less. With hot water a less amount of heat may be used in spring and fall, and heat will be secured more cheaply. Either steam or hot-water pipes are used for heating greenhouses, steam more frequently for large houses, and hot water for small houses. High heat can be got up quicker with steam than with hot water, and less heating surface of pipe is required, thus making first cost a little less. With hot water a less amount of heat may be used in spring and fall, and heat will be secured more cheaply. Either steam or hot-water pipes are used for heating greenhouses, steam more frequently for large houses, and hot water for small houses. High heat can be got up quicker with steam than with hot water, and less heating surface of pipe is required, thus making first cost a little less. With hot water a less amount of heat may be used in spring and fall, and heat will be secured more cheaply. Either steam or hot-water pipes are used for heating greenhouses, steam more frequently for large houses, and hot water for small houses. High heat can be got up quicker with steam than with hot water, and less heating surface of pipe is required, thus making first cost a little less. With hot water a less amount of heat may be used in spring and fall, and heat will be secured more cheaply. Either steam or hot-water pipes are used for heating greenhouses, steam more frequently for large houses, and hot water for small houses. High heat can be got up quicker with steam than with hot water, and less heating surface of pipe is required, thus making first cost a little less. With hot water a less amount of heat may be used in spring and fall, and heat will be secured more cheaply. Either steam or hot-water pipes are used for heating greenhouses, steam more frequently for large houses, and hot water for small houses. High heat can be got up quicker with steam than with hot water, and less heating surface of pipe is required, thus making first cost a little less. With hot water a less amount of heat may be used in spring and fall, and heat will be secured more cheaply. Either steam or hot-water pipes are used for heating greenhouses, steam more frequently for large houses, and hot water for small houses. High heat can be got up quicker with steam than with hot water, and less heating surface of pipe is required, thus making first cost a little less. With hot water a less amount of heat may be used in spring and fall, and heat will be secured more cheaply. Either steam or hot-water pipes are used for heating greenhouses, steam more frequently for large houses, and hot water for small houses. High heat can be got up quicker with steam than with hot water, and less heating surface of pipe is required, thus making first cost a little less. With hot water a less amount of heat may be used in spring and fall, and heat will be secured more cheaply. Either steam or hot-water pipes are used for heating greenhouses, steam more frequently for large houses, and hot water for small houses. High heat can be got up quicker with steam than with hot water, and less heating surface of pipe is required, thus making first cost a little less. With hot water a less amount of heat may be used in spring and fall, and heat will be secured more cheaply. Either steam or hot-water pipes are used for heating greenhouses, steam more frequently for large houses, and hot water for small houses. High heat can be got up quicker with steam than with hot water, and less heating surface of pipe is required, thus making first cost a little less. With hot water a less amount of heat may be used in spring and fall, and heat will be secured more cheaply. Either steam or hot-water pipes are used for heating greenhouses, steam more frequently for large houses, and hot water for small houses. High heat can be got up quicker with steam than with hot water, and less heating surface of pipe is required, thus making first cost a little less. With hot water a less amount of heat may be used in spring and fall, and heat will be secured more cheaply. Either steam or hot-water pipes are used for heating greenhouses, steam more frequently for large houses, and hot water for small houses. High heat can be got up quicker with steam than with hot water, and less heating surface of pipe is required, thus making first cost a little less. With hot water a less amount of heat may be used in spring and fall, and heat will be secured more cheaply. Either steam or hot-water pipes are used for heating greenhouses, steam more frequently for large houses, and hot water for small houses. High heat can be got up quicker with steam than with hot water, and less heating surface of pipe is required, thus making first cost a little less. With hot water a less amount of heat may be used in spring and fall, and heat will be secured more cheaply. Either steam or hot-water pipes are used for heating greenhouses, steam more frequently for large houses, and hot water for small houses. High heat can be got up quicker with steam than with hot water, and less heating surface of pipe is required, thus making first cost a little less. With hot water a less amount of heat may be used in spring and fall, and heat will be secured more cheaply. Either steam or hot-water pipes are used for heating greenhouses, steam more frequently for large houses, and hot water for small houses. High heat can be got up quicker with steam than with hot water, and less heating surface of pipe is required, thus making first cost a little less. With hot water a less amount of heat may be used in spring and fall, and heat will be secured more cheaply. Either steam or hot-water pipes are used for heating greenhouses, steam more frequently for large houses, and hot water for small houses. High heat can be got up quicker with steam than with hot water, and less heating surface of pipe is required, thus making first cost a little less. With hot water a less amount of heat may be used in spring and fall, and heat will be secured more cheaply. Either steam or hot-water pipes are used for heating greenhouses, steam more frequently for large houses, and hot water for small houses. High heat can be got up quicker with steam than with hot water, and less heating surface of pipe is required, thus making first cost a little less. With hot water a less amount of heat may be used in spring and fall, and heat will be secured more cheaply. Either steam or hot-water pipes are used for heating greenhouses, steam more frequently for large houses, and hot water for small houses. High heat can be got up quicker with steam than with hot water, and less heating surface of pipe is required, thus making first cost a little less. With hot water a less amount of heat may be used in spring and fall, and heat will be secured more cheaply. Either steam or hot-water pipes are used for heating greenhouses, steam more frequently for large houses, and hot water for small houses. High heat can be got up quicker with steam than with hot water, and less heating surface of pipe is required, thus making first cost a little less. With hot water a less amount of heat may be used in spring and fall, and heat will be secured more cheaply. Either steam or hot-water pipes are used for heating greenhouses, steam more frequently for large houses, and hot water for small houses. High heat can be got up quicker with steam than with hot water, and less heating surface of pipe is required, thus making first cost a little less. With hot water a less amount of heat may be used in spring and fall, and heat will be secured more cheaply. Either steam or hot-water pipes are used for heating greenhouses, steam more frequently for large houses, and hot water for small houses. High heat can be got up quicker with steam than with hot water, and less heating surface of pipe is required, thus making first cost a little less. With hot water a less amount of heat may be used in spring and fall, and heat will be secured more cheaply. Either steam or hot-water pipes are used for heating greenhouses, steam more frequently for large houses, and hot water for small houses. High heat can be got up quicker with steam than with hot water, and less heating surface of pipe is required, thus making first cost a little less. With hot water a less amount of heat may be used in spring and fall, and heat will be secured more cheaply. Either steam or hot-water pipes are used for heating greenhouses, steam more frequently for large houses, and hot water for small houses. High heat can be got up quicker with steam than with hot water, and less heating surface of pipe is required, thus making first cost a little less. With hot water a less amount of heat may be used in spring and fall, and heat will be secured more cheaply. Either steam or hot-water pipes are used for heating greenhouses, steam more frequently for large houses, and hot water for small houses. High heat can be got up quicker with steam than with hot water, and less heating surface of pipe is required, thus making first cost a little less. With hot water a less amount of heat may be used in spring and fall, and heat will be secured more cheaply. Either steam or hot-water pipes are used for heating greenhouses, steam more frequently for large houses, and hot water for small houses. High heat can be got up quicker with steam than with hot water, and less heating surface of pipe is required, thus making first cost a little less. With hot water a less amount of heat may be used in spring and fall, and heat will be secured more cheaply. Either steam or hot-water pipes are used for heating greenhouses, steam more frequently for large houses, and hot water for small houses. High heat can be got up quicker with steam than with hot water, and less heating surface of pipe is required, thus making first cost a little less. With hot water a less amount of heat may be used in spring and fall, and heat will be secured more cheaply. Either steam or hot-water pipes are used for heating greenhouses, steam more frequently for large houses, and hot water for small houses. High heat can be got up quicker with steam than with hot water, and less heating surface of pipe is required, thus making first cost a little less. With hot water a less amount of heat may be used in spring and fall, and heat will be secured more cheaply. Either steam or hot-water pipes are used for heating greenhouses, steam more frequently for large houses, and hot water for small houses. High heat can be got up quicker with steam than with hot water, and less heating surface of pipe is required, thus making first cost a little less. With hot water a less amount of heat may be used in spring and fall, and heat will be secured more cheaply. Either steam or hot-water pipes are used for heating greenhouses, steam more frequently for large houses, and hot water for small houses. High heat can be got up quicker with steam than with hot water, and less heating surface of pipe is required, thus making first cost a little less. With hot water a less amount of heat may be used in spring and fall, and heat will be secured more cheaply. Either steam or hot-water pipes are used for heating greenhouses, steam more frequently for large houses, and hot water for small houses. High heat can be got up quicker with steam than with hot water, and less heating surface of pipe is required, thus making first cost a little less. With hot water a less amount of heat may be used in spring and fall, and heat will be secured more cheaply. Either steam or hot-water pipes are used for heating greenhouses, steam more frequently for large houses, and hot water for small houses. High heat can be got up quicker with

Our Homes.

The Workbox.

KNITTED VANDYKE EDGE.

Cast on 25 stitches, knit across once plain. 1st row—Slip 1, 1 plain, over, narrow, 1 plain, over twice, slip 1, narrow, pass slip stitch over, 1 plain, over, narrow, 2 plain, over twice, narrow, 10 plain.

2d row—Slip 1, knit rest plain except where the double loop comes; in this pur the second half.

3d row—Slip 1, plain, over, narrow, 5 plain, over, narrow, rest plain.

4th row—Slip 1, rest plain.

5th row—Slip 1, plain, over, narrow, 1 plain, over twice, slip 1, narrow, pass slip stitch over, 1 plain, over, narrow, 2 plain, over twice, narrow, over twice, narrow, rest plain.

6th row—Like the second row.

7th row—Like the third row.

8th row—Like the fourth row.

Repeat from first row.

EVA M. NILES.

Rules for Readers.

See that when reading or standing the light is abundant, but not dazzling.

It should never come from the front.

Avoid reading and study by poor light.

Sunlight should never fall upon work or the printed page.

Never read in the twilight.

Nor while suffering great bodily fatigue, nor during recovery from illness.

Never read lying down.

Select well-printed books.

For proper vision printed matter should not be less than fifteen inches from the eye.

During reading or study avoid the stooping position, or whatever tends to produce congestion of the head and face.

Do not use the eyes too long for near work, but give them occasional periods of rest.

Look up frequently when at work and fix the eye upon some distant object.

One would not think of walking all day without sitting down, nor should one attempt to read or sew steadily.

Closing the eyes for a full minute now and then rests the tired optic nerve.

If you are at all troubled about your eyes consult an oculist at once.

Color Cure for the Eyes.

In the present state of society, with the forced conditions of living, when the strain of competition inclines more particularly to educational pursuits, it is most essential that the sense of sight should be properly understood.

Too much of one color not only tires the sight, but absolutely impairs it, and the constant application of the eyesight to one grade of color reduces it in a very short time to a condition of atrophy, which is variously described as color blindness, weak sight, etc.

The invention of a rainbow-hued card proceeds on approved scientific lines. It is based on the theory of the solar spectrum, as indicated by the foremost scientist of the day, Lord Kelvin. It affords relief in a thoroughly scientific manner. The eye, which craves for constant change of hue, can, in the momentary glances which colors afford, travel the whole length of the spectrum, and receive an acquisition of strength far superior to any aid concocted by spectacle or other eye-strain specialists. Besides being the cure for weak eyesight, this is a capital preservative and ocular tonic. A glance over this colored card is equal to a walk through green fields and beneath sunny skies. It concentrates for a busy man as muchocular refreshment as his wearied eye requires, and is so unconventional that, placed once on his desk, to be effective, it only requires occasional glancing at.—Eng. Mech.

The Septic Tank.

At the Pittsburgh meeting of the American Association, Prof. L. P. Kennicutt vindicates the old-fashioned cesspool as equivalent to one of the new methods of treating sewage, under the name of septic tank. He says that the septic tank, about which we have all heard so much, is only a modified cesspool, and the changes brought about in the septic tank are only the changes that occurred in the old-fashioned cesspool of our forefathers, and it is most interesting, as well as somewhat amusing, to see how the old-fashioned cesspool, which only a few years ago was regarded as a bane of all manner of ills, is now regarded by a number of as most valuable adjunct in the disposal of filth.

A septic tank is only an open or closed tank through which the sewage is run continuously, but at so slow a rate that it requires from twelve to twenty-four hours for it to pass through the tank. The sewage itself, as we have seen, contains anaerobic bacteria, and by allowing the sewage to remain in the tank out of contact of air, these bacteria increase immensely in number, and acting upon the solid and liquid substances in the tank, bring about those changes which are grouped under the name of putrefaction.

"Now, what happens on the ocean? At sea, the observer is obliged, in consequence of the rolling and pitching of the ship, to change the horizon repeatedly at brief intervals. He is, in other words, in the same condition as the person on the top of the tower.

"I have not yet discovered if people suffering from vertigo are also affected by seasickness, or vice versa, or to what extent; but it would be interesting to have statistics on the subject, and to know if my idea would be confirmed."

"What about the treatment? Why should the fact of looking in a mirror diminish the sensation of seasickness? Because eyes and mirror form one body and, the changing of horizons being reflected by a surface equal in every plane, the eye loses the consciousness of the different changes?"—Literary Digest.

Fancy Work is a Medicine.

The skillful physician today doctors by diet as much as by pellets and potions. "Thro' physics to the dogs" is a maxim largely advocated by the twentieth-century doctor.

"I am using fancy work quite extensively in my practice," said a doctor whose lightest word is gospel to many a household.

"Why about the treatment? Why should the fact of looking in a mirror diminish the sensation of seasickness? Because eyes and mirror form one body and, the changing of horizons being reflected by a surface equal in every plane, the eye loses the consciousness of the different changes?"—Literary Digest.

Why Carpets Are Unsatisfactory.

"The possibilities of housing microbes"—that is the true way in which the objections to carpets are summed up by J. Wilson, writing on "Carpet Dangers" (Good Housekeeping, October). Mr. Wilson tells us that while in a carpeted room in a tem-

ment house seventy-five germs settled on a three-inch saucer in five minutes; after sweeping there were twenty-seven hundred. A thick carpet paper or other padding adds to the life of the carpet and gives a spring and soft tread in walking, but it also adds to the objectionable possibilities aforesaid. Mr. Wilson proceeds as follows:

"William Morris said the use of a carpet was excusable only when the floor was in bad condition. Yet even that is hardly sufficient reason, for a new floor can be laid over the old one. But if one must have carpets, let them be taken down at intervals of not less than six inches, and with long tacks driven in only a short distance. Or, better still, have the carpets fitted with brass eyes to drop over nails set permanently in the floor. Then, with some moving of furniture, the carpet can be cleaned frequently in the open air; better yet, have the carpet fit only the central part of the room, showing the bare floor for say one and one-half feet near the walls. This means less furniture to move at cleaning time, and therefore more frequent cleanings.

One doctor has a collection of curious and antique tapestry hangings that stands him in good stead in diverting his patients. The things serve to break the ice with stranger patients while they take their general mental and social. The decorations of the reception-rooms are an introduction to the choicer treasures that will be unfolded on further intimacy.

"Whether it be wall hangings, rare china, musical subjects, the latest books, fine dogs or cats, whatever is the doctor's pet fad, he is sure to be well stocked with anecdotes and incidents relating to the subject, and tell these in such a manner as to rivet interest.

"Doctor X is such a wonderfully entertaining man, besides being a good physician, it's worth being sick just to know him," is the almost universal verdict concerning this man of science.

And the doctor chuckles when this praise comes back to him, remembering how very little of scientific treatment these neurotic patients received at his hands, how only chatted to them and heartened them up and suggested new subjects for them, though business man had all his carpets taken up, the house cleaned, and the floors then covered with matting. The carpets were thoroughly cleaned and were placed in hogheads for storage till fall."

New Cure for Seasickness.

The theory that seasickness is an affliction of the brain and is largely of the visual origin is not a new one, but prominence is given to it by the following letter written to Dr. E. Castelli of Washington, D. C., by Signor Mayor de Planches, the Italian ambassador to this country:

"My dear Dr. Castelli—Knowing that you are interested in the treatment of seasickness, I take pleasure in giving you my personal observations on the subject. After having found by experience that the only way not to suffer from seasickness was to lie in a horizontal position, I happened to notice that fixing my eyes upon a mirror while dressing (even when the sea was stormy) was sufficient to relieve the unpleasant sensations of seasickness. During my last ocean trip I tried this accidentally discovered remedy, and always with good results. Take into consideration my observation and make it yours, if you think it may be of benefit to science."

MAYOR DES PLANCHES.

Dr. Castelli publishes this letter in the Medical Record, and with it the following comments:

"This clever observation may be another clue to the pathogenesis of seasickness. During my last trip, convinced of the possibility that cerebral anemia was the principal cause of seasickness, I recommended to many the use of red glasses in connection with the administration of ephinephrine for the purpose of producing hyperemic condition of the brain, but the results were not slightly encouraging. My trip was from Geneva to New York, with rather rough sea after leaving Gibraltar. What the distinguished author of the letter says is, in my opinion, the demonstration that the pathogenesis of seasickness is the same as that of vertigo, i.e., the affection is the result of the consciousness of the oscillation of the act of orientation.

"It is the same phenomenon observed in a person who looks from the top of a tower on the surrounding country, the eye adjusts itself to all the different horizons that can be seen from the top—the tower being the centre of the sky above and the earth below.

The eye of the observer changes every few seconds to a different horizon, and has, in consequence, the sensation of the lack of equilibrium. We call that vertigo, which, in its highest form, manifests itself in pallor, cold perspiration, weak pulse, nausea and vomiting—the same symptoms as those of seasickness.

"Now, what happens on the ocean? At sea, the observer is obliged, in consequence of the rolling and pitching of the ship, to change the horizon repeatedly at brief intervals. He is, in other words, in the same condition as the person on the top of the tower.

"I have not yet discovered if people suffering from vertigo are also affected by seasickness, or vice versa, or to what extent; but it would be interesting to have statistics on the subject, and to know if my idea would be confirmed."

"What about the treatment? Why should the fact of looking in a mirror diminish the sensation of seasickness? Because eyes and mirror form one body and, the changing of horizons being reflected by a surface equal in every plane, the eye loses the consciousness of the different changes?"—Literary Digest.

Fancy Work is a Medicine.

The skillful physician today doctors by diet as much as by pellets and potions. "Thro' physics to the dogs" is a maxim largely advocated by the twentieth-century doctor.

"I am using fancy work quite extensively in my practice," said a doctor whose lightest word is gospel to many a household.

"Why about the treatment? Why should the fact of looking in a mirror diminish the sensation of seasickness? Because eyes and mirror form one body and, the changing of horizons being reflected by a surface equal in every plane, the eye loses the consciousness of the different changes?"—Literary Digest.

When Your Joints Are Stiff

and muscles sore from cold or rheumatism, when you slip and sprain a joint, strain your side or bruise yourself, Perry Davis' Painkiller will take out the soreness and fix you right in a jiffy. Always have it with you, and use it freely. USE

When Your Joints Are Stiff

and muscles sore from cold or rheumatism, when you slip and sprain a joint, strain your side or bruise yourself, Perry Davis' Painkiller will take out the soreness and fix you right in a jiffy. Always have it with you, and use it freely. USE

Painkiller

"Tranquillize the spirit and the body responds. If a sufferer from nervous prostration can be induced to forget herself even for a brief time each day, it means much toward recovery."

New York has schools and institutes in these days for everything under the sun-schools for teaching breathing and proper exercise and judicious bathing; for teaching people how to relax and how to care for all bodily faculties. But if it were possible to have a school for teaching selfforgetfulness at so much an hour or a term, it would go far toward doing away with the great overplus of nervous cases that now form four-fifths of every doctor's work.

Fads are at the present time a booz to the popular physician. To be a favorite with his wealthy patrons he must be able to meet them on whatever ground of interest appeals to them most strongly. And if he himself has a well-defined leaning toward any one of the fashionables fancies it greatly to prevent its sticking. Then pack in jars. This marmalade is not so bitter as much is in the market, while the seeds give out a gelatinous richness.

MUSHROOM OMELET.

Cut into very small pieces one cup of canned mushrooms. Put them into a saucier with one dozen lemon slices, sautee thoroughly, then add a half cupful of cream, a little salt and pepper, and a few dashes of nutmeg. Pour over the sliced oranges and lay on top. Cover with the remainder of the mixture and bake in a moderate oven. When done, serve with a garnish of fresh orange slices.

ORANGE MARMALADE.

Now there are getting plentiful and cheap, try putting up marmalade after this recipe. To each dozen oranges allow a half dozen lemons. Sautee them thoroughly, then add a half cupful of cream, a little salt and pepper, and a few dashes of nutmeg. Pour over the sliced oranges and lay on top. Cover with the remainder of the mixture and bake in a moderate oven. When done, serve with a garnish of fresh orange slices.

CHICKEN AND OYSTERS.

Take a saucier and put two tablespoomfuls each of butter and flour, one-half tablespoomful of salt and pepper, one of onions, one of mushrooms, one of oysters, one of pickles, one of cream, a little salt and pepper, and a few dashes of nutmeg. Pour over the sliced oranges and lay on top. Cover with the remainder of the mixture and bake in a moderate oven. When done, serve with a garnish of fresh orange slices.

CHOCOLATE CARAMELS.

Stir into very small pieces one cup of canned mushrooms. Put them into a saucier with one dozen lemon slices, sautee thoroughly, then add a half cupful of cream, a little salt and pepper, and a few dashes of nutmeg. Pour over the sliced oranges and lay on top. Cover with the remainder of the mixture and bake in a moderate oven. When done, serve with a garnish of fresh orange slices.

VANILLA SAUCE.

Put a pint of rich milk in a double boiler, sweeten with two tablespoomfuls of granulated sugar. While the milk is coming to a boil, stir the yolks of four eggs until light and creamy, add two tablespoomfuls of fine-cut chicken, and two tablespoomfuls of small oysters; cook until the oysters are plump. Serve on buttered toast.

BRASSIE'S SOUP MANUFACTURING CO.

Sole Manufacturers. Philadelphia.

"Tranquillize the spirit and the body responds. If a sufferer from nervous prostration can be induced to forget herself even for a brief time each day, it means much toward recovery."

New York has schools and institutes in these days for everything under the sun-schools for teaching breathing and proper exercise and judicious bathing; for teaching people how to relax and how to care for all bodily faculties. But if it were possible to have a school for teaching selfforgetfulness at so much an hour or a term, it would go far toward doing away with the great overplus of nervous cases that now form four-fifths of every doctor's work.

Fads are at the present time a booz to the popular physician. To be a favorite with his wealthy patrons he must be able to meet them on whatever ground of interest appeals to them most strongly. And if he himself has a well-defined leaning toward any one of the fashionables fancies it greatly to prevent its sticking. Then pack in jars. This marmalade is not so bitter as much is in the market, while the seeds give out a gelatinous richness.

MUSHROOM OMELET.

Cut into very small pieces one cup of canned mushrooms. Put them into a saucier with one dozen lemon slices, sautee thoroughly, then add a half cupful of cream, a little salt and pepper, and a few dashes of nutmeg. Pour over the sliced oranges and lay on top. Cover with the remainder of the mixture and bake in a moderate oven. When done, serve with a garnish of fresh orange slices.

ORANGE MARMALADE.

Now there are getting plentiful and cheap, try putting up marmalade after this recipe. To each dozen oranges allow a half dozen lemons. Sautee them thoroughly, then add a half cupful of cream, a little salt and pepper, and a few dashes of nutmeg. Pour over the sliced oranges and lay on top. Cover with the remainder of the mixture and bake in a moderate oven. When done, serve with a garnish of fresh orange slices.

CHICKEN AND OYSTERS.

Take a saucier and put two tablespoomfuls each of butter and flour, one of onions, one of mushrooms, one of oysters, one of pickles, one of cream, a little salt and pepper, and a few dashes of nutmeg. Pour over the sliced oranges and lay on top. Cover with the remainder of the mixture and bake in a moderate oven. When done, serve with a garnish of fresh orange slices.

CHOCOLATE CARAMELS.

Stir into very small pieces one cup of canned mushrooms. Put them into a saucier with one dozen lemon slices, sautee thoroughly, then add a half cupful of cream, a little salt and pepper, and a few dashes of nutmeg. Pour over the sliced oranges and lay on top. Cover with the remainder of the mixture and bake in a moderate oven. When done, serve with a garnish of fresh orange slices.

VANILLA SAUCE.

Put a pint of rich milk in a double boiler, sweeten with two tablespoomfuls of granulated sugar. While the milk is coming to a boil, stir the yolks of four eggs until light and creamy, add two tablespoomfuls of fine-cut chicken, and two tablespoomfuls of small oysters; cook until the oysters are plump. Serve on buttered toast.

BRASSIE'S SOUP MANUFACTURING CO.

Sole Manufacturers. Philadelphia.

"An appropriate costume for morning wear has a skirt of nut-brown faced cloth, with a tucked waist of russet. The French trimmers characterize the effect of all these waists.

R R R
RADWAY'S READY RELIEF

FOR INTERNAL AND EXTERNAL USE.

CURES AND PREVENTS

Colds, Coughs, Sore Throat, Influenza,
Bronchitis, Pneumonia, Swelling
of the Joints, Lumbago,
Inflammations,

Rheumatism, Neuralgia,
Frostbites, Chilblains, Headache, Toothache
Asthma,

DIFFICULT BREATHING.

CURES THE WORST PAINS IN from one to
seventy minutes. NOT ONE HOUR after reading
this advertisement need any one SUFFER WITH
PAIN.

RADWAY'S Ready Relief is a Sure Cure for
every Pain, Spasmodic Convolusions in
the Brain, Chest or Limbs. It was
the First and the Only
PAIN RELIEF.

10¢ per bottle. Sold by Druggists.
RADWAY & CO., 55 Elm Street, New York.

Poetry.

DESIRE.

Swooning 'neath fires of everlasting pain,
I hear'd a voice that from the desert came
And bade me quench with tears, the smouldering flame.
And rise to region of desire again;
So long, I had been grovelling on the plain,
So long, forgotten to make the heavens mine all,
I had grown used to shamelessness of shame
And to escape the sight, still seek in vain.
Yet, when I see great souls, that stand with might
Of the eternal hills, the chosen few,
Whose lives shine forth like stars on breast
of night.

Long upon some peak to build anew
A nobler dwelling-place, whose central light,
How shine the stars, the stars will welcome, too.
MRS. WHITON STONE

THE OLD PIANO.

With tarnished keys, once white as milk,
And candles that for light did duty,
In bravery of fluted beauty,
Pathetic in its faded beauty,

Our gentle household god! It stands
Past any miracle of tuning;
Dumb to the most persuasive hands,
Dead, with its dear and dead commanding.

And yet, when summer nights are long,
A hand seems searching through its treasure
Of peaceful Sabbath evensong
And stately chant, or warlike measure.

Those dear old tunes our mothers knew!
That fell so lightly from their fingers;
Sweet spirits! Far away they flew.
But still their music with us lingers.

Of song's incarnate mystery
The very home, where memories thronging;
Not passive wood and ivory,
But rife with human love and longing.

So, lovingly we guard its fate,
Well may the sternest eyes falter!
Such sweet gifts unconquerable—
No alien gods shall have its altar.

—Richard Scare, in Chicago Inter-Ocean.

RELATED ANSWERS.

She said, "The play seemed tiresome,"
And paused for a reply.
I said, "No time hangs heavy
If you are only by."

That is, I said later,
I couldn't think of it then;
I was ready for another time.
But she never said it again.

"The good, the true, the beautiful,"
She said, "I dearly prize."
"And they are always with you,"
I said with beaming eyes.

That is, I should have said it
If I hadn't been too slow.
As it was, I only thought it out
An hour or two ago.

"May I sit by you?" asked Phyllis.
Quoth I, "The pleasure's mine";
I said it after she got out.
Two stations about the line.
Send me, benignant heaven,
Some speed of wit I pray,
That I may think of it replies
Upon the same day?

—Portland Oregonian.

THE MAN HE KILLED.

Scene: The settle of the Fox Inn, Stagfoot Lane.

Characters: The speaker (a returned soldier), and his friends, natives of the hamlet.

I.

Had he and I but met
By some old ancient inn,
We should set us down to wet
Right many a flipper.

II.

But ranged as infantry,
And staring face to face,
I shot at him as he at me,
And killed him in his place.

III.

I shot him dead, because—
Because he was my foe,
You see; my foe of course he was;
That's clear enough; although

IV.

He thought he'd list, perhaps,
Offhand like—just as I—
Was out of work—had sold his traps—
No other reason why.

V.

Yes; quaint and curious war is!
You shoot a fellow down
You'd treat if met where any bar is,
Or help to half a crown.

—Thomas Hardy, in Harper's Weekly.

COMMON THINGS.

Give me, dear Lord, Thy magic common things,
Which all can see, which all may share,
Daylight and dewdrops, grass and stars and sea,
Nothing unique or new and nothing rare.

Just daisies, knapweed, wind among the thorns;
Some clouds to cross the blue old sky above;
Sun, winter fires, a useful hand, a heart,
The common glory of a woman's love.

Then when my feet no longer tread old paths
Keep them from fouling sweet things any;
Write one old epitaph in grace-like words:
"Such things look fairer than they sojourned here."

—Spectator.

Two went to pray? Oh! rather say,
One went to brag, the other to pray.
One stands up close and treads on high,
Where the other dares not lend his eye.
One nearer to God's altar trod:
The other to the altar's God.

—Richard Crashaw.

Miscellaneous.

Michael.

She had just returned from the crowded concert hall, where she had enjoyed a veritable triumph. Her face was flushed and smiling, and she still held in her hands the great bouquet of roses—her favorite flower—which had been given her as she left the platform. She was recalled to her surroundings by the voice of her maid, Fanchon.

"There is a telegram for madame on the table," she said. Denise picked it up; it was addressed to "Mrs. Fielden," which was unusual. She was known to the London world and her friends as "Madame Elena." She opened it sharply. It was brief and to the point:

"I think it is right to let you know that the boy is seriously ill.—Michael."

Unconsciously she crushed the message in her hand, and her thoughts flew to the Lincolshire village where it had been written. She saw again the first page of the long stretches of empty wadding, which she had gone to look for, almost to all; then the graysness and barrenness which were so antagonistic to her gay, happy-loving nature. Then the scent of the roses smote her sharply, she saw the luxury of her own surroundings, the signs of taste and money everywhere, and turning to the maid, she cried:

"Bring me an 'A. B. C.' and pack a bag. I am going into the country."

"Shall I attend, madame?"

"No, I don't know how long I shall be away. I will write to you again when I return. She thought of the fashionableness of the manor house with old Hannah for company.

"I wonder, if he is really very ill?" she pondered, as she sat in the train. "I think Michael would scarcely have sent for me unless he were."

The meeting will be as awkward and uncomfortable for him as for me. Poor little Michael—what a name to give a child!—I wonder what he is like now? He was not a pretty or interesting child. I remember he was always crying."

"There is no one to meet her when she arrives, but she did not expect, though the village, if I had sent to the station on the change of her position."

After a sleep of nearly an hour she recognized a familiar gateway; she remembered the old coat-of-arms cut in the stonework, though she could not see it now, with the motto, "I live! I die!" Yes, that was all the Fieldens had been for generations. It was a decaying race, and they had not had the energy, or perhaps the power, to stop the ruin that was creeping on them, and the man who lived there now had grown sour and bitter with baldness.

"I wonder, if he is really very ill?" she said again, in reply to Denise's greeting. "He hoped you would excuse him coming down, but the child was very restless tonight, and can't well be left. If you will please to sit down and take something I will tell him you are here." And she opened the door of a room where a frugal meal was laid.

"I'm not a bit sleepy. Come and talk to me, mother," she said. She sat down in the low chair and laid her head on his pillow as he liked to have it.

"I've got something to tell you, sweetheart," she said, tucking one of his hands under her cheek. "What do you think has happened? You are to come with me to mother's home. How like you that you like that!"

A wise and more prudent mother would have waited to excite the child at that hour, but Denise was a creature of impulse.

"Go away with your mother above?" Do you really mean, mother? How lovely!" springing up in bed with shining eyes. "And is father coming too?"

"Father does not want to come, darling." The child face grew grave.

"It will be dull for father all alone here," he said seriously. "You ask him to come, mother; he'll come for me."

"Not for me, for me perhaps least of all," she murmured, forgetting that she was talking to a child; but little Michael was wiser than his years.

"Go, now, mother," he said coquettishly. "Try, wait, I tell you to secret; it can't be wrong to tell. I'll keep you to me at night, and—"

I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

"I saw him looking at me at night, and—

